

**IN THE CLAIMS**

Please amend the claims as follows:

Claims 1-3 (canceled)

Claim 4 (previously presented): A heat storage device comprising:

a heat storage tank charged with a heat transfer medium which also serves as a heat storage material for storing the heat supplied from the outside;

a heat transport device which execute an injection and an extraction of heat between the inside of the heat storage tank and the outside by the inflow and the outflow of said heat transfer medium, said heat transport device being disposed so as to execute a heat transport between the central portion in said heat storage tank and the outside; and

suppressing means for suppressing the natural convection of the heat storage material, said suppressing means being disposed in the outer portion in the heat storage tank.

Claim 5 (canceled)

Claim 6 (currently amended): A heat storage device according to ~~claims 3 or~~ claim 4, wherein:

as suppressing means, a property of increasing viscosity by the application of voltage is provided for the heat storage material or the heat transfer medium in the outer portion in the heat storage tank; and

means for applying power between a pair of electrodes is further provided, as suppressing means, on opposite sides of the outer portion in the heat storage tank so as to sandwich said outer portion.

Claim 7 (currently amended): A heat storage device according to ~~claims 3 or~~ claim 4,  
wherein:

as suppressing means, a property of increasing viscosity by the application of a  
magnetic force is provided for the heat storage material or the heat transfer medium in the  
outer portion in the heat storage tank; and

a magnet for exerting the magnetic force is further provided, as suppressing means, in  
the outer portion in the heat storage tank.

Claim 8 (currently amended): A heat storage device according to ~~claims 3 or~~ claim 4,  
further comprising:

a barrier, as suppressing means, for hindering the natural convection of the heat  
storage material or the heat transfer medium, said barrier being disposed in the outer portion  
in the heat storage tank.

Claim 9 (currently amended): A heat storage device according to ~~claims 3 or~~ claim 4,  
further comprising:

means for promoting a heat transfer, said means being disposed between the central  
portion and the outer portion in the heat storage tank.